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1 AAAAAGAAAG GAAGAAAATG GAAATACAAC AAACACACCG CAAAATCAAT
51 CGCCCTCTGG TTTCTCTCGC TTTAGTAGGA GCATTAGTCA GCATCACACC
101 GCAACAAAGT CATGCCGCCT TTTTCACAAC CGTGATCATT CCAGCCATTG
151 TTGGGGGTAT CGCTACAGGC ACCGCTGTAG GAACGGTCTC AGGGCTTCTT
201 AGCTGGGGGC TCAAACAAGC CGAAGAAGCC AATAAAACCC CAGATAAACC
251 CGATAAAGTT TGGCGCATT C AAGCAGGAAA AGGCTTTAAT GAATTCCCTA
301 ACAAGGAATA CGACTTATAC AGATCCCTTT TATCCAGTAA GATTGATGGA
351 GGTGGAATT GGGGGAATGC CGCTAGGCAT TATTGGGTCA AAGGCGGGCA
401 ACAGAATAAG CTTGAAGTGG ATATGAAAGA CGCTGTAGGG ACTTATACCT
451 TATCAGGGCT TAGAACTTT ACTGGTGGGG ATTTAGATGT CAATATGCAA
501 AAAGCCACTT TACGCTTGGG CCAATTCAAT GGCAATTCTT TTACAAGCTA
551 TAAGGATAGT GCTGATCGCA CCACGAGAGT GATTTCAACG CTAAAAATAT
601 CTCAATTGAT AATTTGCGAG AAATCAACAA CTCGTGTGGG TTCTGGAGCC
651 GGGAGGAAAG CCAGCTCTAC GGTTTTGA CT TTGCAAGCTT CAGAAGGGAT
701 CACTAGCGAT AAAAACGCTG AAATTTCTCT TTATGATGGT GCCACGCTCA
751 ATTTGGCTTC AAGCAGCGTT AAATTAATGG GTAATGTGTG GATGGGCCGT
801 TTGCAATACG TGGGAGCGTA TTTGGCCCTC TCATACAGCA CGATAAACAC
851 TTCAAAGTA ACAGGGGAAG TGAATTTTAA CCACCTCACT GTTGGCGATA
901 AAAACGCCGC TCAAGCGGGC ATTATCGCTA ATAAAAAGAC TAATATTGGC
951 AACTGGATT TGTGGCAAAG CGCCGGGTTA AACATTATCG CTCCTCCAGA
1001 AGGTGGCTAT AAGGATAAAC CCAATAATAC CCCTTCTCAA AGTGGTGCTA
1051 AAAACGACAA AAATGAAAGC GCTAAAAACG ACAAACAAGA GAGCAGTCAA
1101 AATAATAGTA AACTCAGGT CATTAACCCA CCCAATAGTG CGCAAAAAAC
1151 AGAAGTTCAA CCCACGCAAG TCATTGATGG GCCTTTTGCG GGCGGCAAAG
1201 ACACGGTTGT CAATATCAAC CGCATCAACA CTAACGCTGA TGGCAGGATT
1251 AGAGTGGGAG GGTTTAAAGC TTCTCTTACC ACCAATGCGG CTCATTGCA
1301 TATCGGCAAA GGCGGTGTCA ATCTGTCCAA TCAAGCGAGC GGGCGCTCTC

FIG. 1A

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1351 TTATAGTGGA AAATCTAACT GGAATATCA CCGTTGATGG GCCTTT JA
1401 GTGAATAATC AAGTGGGTGG CTATGCTTTG GCAGGATCAA GCGCGAATTT
1451 TGAGTTTAAG GCTGGTACGG ATACCAAAAA CGGCACAGCC ACTTTTAATA
1501 ACGATATTAG TCTGGGAAGA TTTGTGAATT TAAAGGTGGA TGCTCATACA
1551 GCTAATTTTA AAGGTATTGA TACGGGTAAT GGTGGTTTCA ACACCTTAGA
1601 TTTTAGTGGC GTTACAGACA AAGTCAATAT CAACAAGCTC ATTACGGCTT
1651 CCACTAATGT GGCCGTAAA AACTTCAACA TTAATGAATT GATTGTAAA
1701 ACCAATGGGA TAAGTGTTGG GGAATATACT CATTTTAGCG AAGATATAGG
1751 CAGTCAATCG CGCATCAATA CCGTGC GTTT GGAAACTGGC ACTAGGTCAC
1801 TTTTCTCTGG GGGTGTAAA TTAAAGGTG GCGAAAATT GGTATAGAT
1851 GAGTTTTACT ATAGCCCTTG GAATTATTTT GACGCTAGAA ATATAAAAA
1901 TGTTGAAATC ACCAATAAAC TTGCTTTTGG ACCTCAAGGA AGTCCTTGGG
1951 GCACATCAAA ACTTATGTTT AATAATCTAA CCCTAGGTCA AAATGCGGTC
2001 ATGGATTATA GCCAATTTTT AAATTTAACC ATTCAAGGGG ATTTTCATCA
2051 CAATCAAGGC ACTATCAACT ATCTGGTCCG AGGTGGGAAA GTGGCAACCT
2101 TAAGCGTAGG CAATGCAGCA GCTATGATGT TTAATAATGA TATAGACAGC
2151 GCGACCGGAT TTTACAAACC GCTCATCAAG ATTAACAGCG CTCAAGATCT
2201 CATTAAAAAT ACAGAACATG TTTTATTGAA AGCGAAAATC ATTGGTTATG
2251 GTAATGTTTC TACAGGTACC AATGGCATTG GTAATGTAA TCTAGAAGAG
2301 CAATTCAAAG AGCGCCTAGC CCTTTATAAC AACAATAACC GCATGGATAC
2351 TTGTGTGGTG CGAAATACTG ATGACATTAA AGCATGCGGT ATGGCTATCG
2401 GCGATCAAAG CATGGTGAAC AACCTGACA ATTACAAGTA TCTTATCGGT
2451 AAGGCATGGA AAAATATAGG GATCAGCAAA ACAGCTAATG GCTCTAAAAT
2501 TTCGGTGTAT TATTTAGGCA ATTCTACGCC TACTGAGAAT GGTGGCAATA
2551 CCACAAATTT ACCCACAAC ACCACTAGCA ATGCACGTTC TGCCAACAAC
2601 GCCCTTGCAC AAAACGCTCC TTTCGCTCAA CCTAGTGCTA CTCCTAATTT
2651 AGTCGCTATC AATCAGCATG ATTTTGGCAC TATTGAAAGC GTGTTTGAAT

FIG. 1B

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2701 TGGCTAACCG CTCTAAAGAT ATTGACACGC TTTATGCTAA CTCAGGCGCT
2751 CAAGGCAGGG ATCTCTTACA AACCTTATTG ATTGATAGCC ATGATGCGGG
2801 TTATGCCAGA AAAATGATTG ATGCTACAAG CGCTAATGAA ATCACCAAGC
2851 AATTGAATAC GGCCACTACC ACTTTAAACA ACATAGCCAG TTTAGAGCAT
2901 AAAACCAGCG GCTTACAAAC TTTGAGCTTG AGTAATGCGA TGATTTTAAA
2951 TTCTCGTTTA GTCAATCTCT CCAGGAGACA CACCAACCAT ATTGACTCGT
3001 TCGCCAAACG CTTACAAGCT TTAAGAGACC AAAAATTCGC TTCTTTAGAA
3051 AGCGCGGCAG AAGTGTTGTA TCAATTTGCC CCTAAATATG AAAAACCTAC
3101 CAATGTTTGG GCTAACGCTA TTGGGGGAAC GAGCTTGAAT AATGGCTCTA
3151 ACGCTTCATT GTATGGCACA AGCGCGGGCG TAGACGCTTA CCTTAACGGG
3201 CAAGTGGAAG CCATTGTGGG CGGTTTTGGA AGCTATGGTT ATAGCTCTTT
3251 TAATAATCGT GCGAACTCCC TTAAGCTCTGG GGCCAATAAC ACTAATTTTG
3301 GCGTGTATAG CCGTATTTTA ACCAACCAGC ATGAATTTGA CTTTGAAGCT
3351 CAAGGGGCAC TAGGGAGCGA TCAATCAAGC TTGAATTTCA AAAGCGCTCT
3401 ATTACAAGAT TTGAATCAAA GCTATCATT CTTAGCCTAT AGCGCTGCAA
3451 CAAGAGCGAG CTATGGTTAT GACTTCGCGT TTTTATAGGAA CGCTTTAGTG
3501 TTAAGACCAA GCGTGGGTGT GAGCTATAAC CATTTAGGTT CAACCAACTT
3551 TAAAGCAAC AGCACCAATC AAGTGGCTTT GAAAAATGGC TCTAGCAGTC
3601 AGCATTTATT CAACGCTAGC GCTAATGTGG AAGCGCGCTA TTATTATGGG
3651 GACACTTCAT ACTTCTACAT GAATGCTGGA GTTTTACAAG AGTTCGCTCA
3701 TGTTGGCTCT AATAACGCCG CGTCTTTAAA CACCTTTAAA GTGAATGCCG
3751 CTCGCAACCC TTAAATACC CATGCCAGAG TGATGATGGG TGGGGAATTA
3801 AAATTAGCTA AAGAAGTGTT TTTGAATTTG GCGTGTGTTT ATTTGCACAA
3851 TTTGATTTCC AATATAGGCC ATTTGCTTC CAATTTAGGA ATGAGGTATA
3901 GTTTCTAAAT ACCGCTCTTA AACCCATGCT CAAAGCATGG GTTTGAAATC
3951 TTACAAAACA

FIG. 1C

ERSAT7RI ATT

09921157-080201

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1 MEIQQTHRKI NRPLVSLALV GALVSITPQQ SHAAFFTTVI IPAIVGGIAT
51 GTAVGTVSGL LSWGLKQAE E ANKTPDKPDK VWRIQAGKGF NEFPNKEYDL
101 YRSLLSSKID GGWDWGNAAR HYWVKGGQQN KLEVDMKDAV GTYTLISGLRN
151 FTGGDLVDNM QKATLRLGQF NGNSFTSYKD SADRTTRVIS TLKISQLIIL
201 QKSTTRVGS G AGRKASSTVL TLQASEGITS DKNAEISLYD GATLNLASSS
251 VKLMGNVWVG RLQYVGAYLA PSYSTINTSK VTGEVNFNHL TVGDKNAAQA
301 GIIANKKTNI GTLDLWQSAG LNIIAPPEGG YKDKPNNTPS QSGAKNDKNE
351 SAKNDKQESS QNNSNTQVIN PPNSAQKTEV OPTQVIDGPF AGGKDTVVNI
401 NRINTNADGT IRVGGFKASL TTNAHLHIG KGGVNLSNQA SGRSLIVENL
451 TGNITVDGPL RVNNQVGGYA LAGSSANFEF KAGTDTKNGT ATFNNDISLG
501 RFVNLKVDAH TANFKGIDTG NGGFNTLDFS GVTDKVNINK LITASTNVAV
551 KNFNINELIV KTNGISVGEY THFSEDIGSQ SRINTVRLET GTRSLFSGGV
601 KFKGGKELVI DEFYYSPWNY FDARNIKNVE ITNKLAFGPQ GSPWGTSKLM
651 FNNLTGQNA VMDYSQFLNL TIQGDFFINQ GTINYLVRRG KVALSVGNA
701 AAMMFNNDID SATGFYKPLI KINSAQDLIK NTEHVLLKAK IIGYGNVSTG
751 TNGISNVNLE EQFKERLALY NNNNRMDTCV VRNTDDIKAC GMAIGDQSMV
801 NNP DNYKYLI GKAWKNIGIS KTANGSKISV YYLGNSTPTE NGGNTTNLPT
851 N TTSNARSAN NALAQNAFPA QPSATPNLVA INQHDFGTIE SVFELANRSK
901 DIDTLYANS G AQGRDLLQTL LIDSHDAGYA RKMIDATSAN EITKQLNTAT
951 TTLNNIASLE HKTSG LQTLS LSNAMILNSR LVNLSRRHTN HIDSFAKRLQ
1001 ALKDQKFASL ESAAEVLYQF APKYEKPTNV WANAIGGTSL NNGSNASLYG
1051 TSAGV DAYLN GQVEAIVGGF GSYGYSSFNN RANSLNSGAN NTNFGVYSRI
1101 LTNQHEFD FE AQGALGSDQS SLNFKSALLQ DLNQSYHYLA YSAATRASYG
1151 YDFAFFRNAL VLKPSVGVSY NHLGSTNFKS NSTNQVALKN GSSSQHLFNA
1201 SANVEARYYY GDTSYFYMNA GVLQEFHVG SNNAASLNTF KVNAARNPLN
1251 THARVMMGGE LKLAKEVFLN LGVVYLHNL I SNIGHFASNL GMRYSF

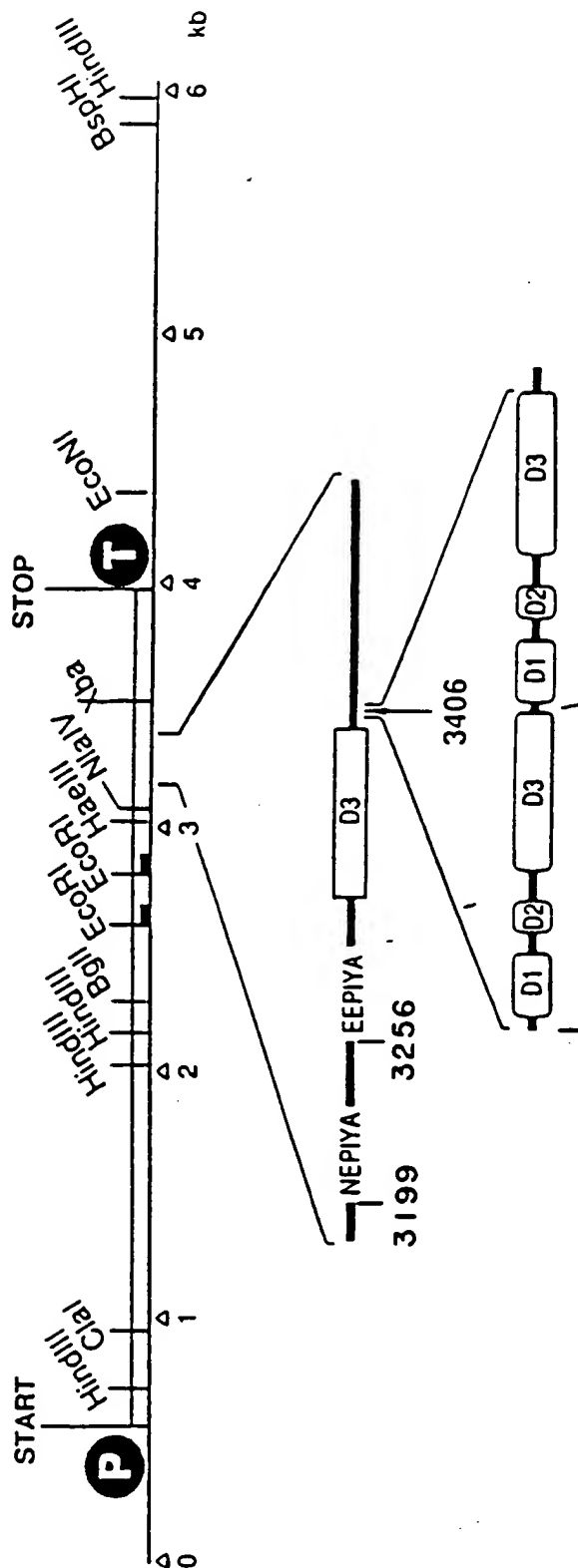
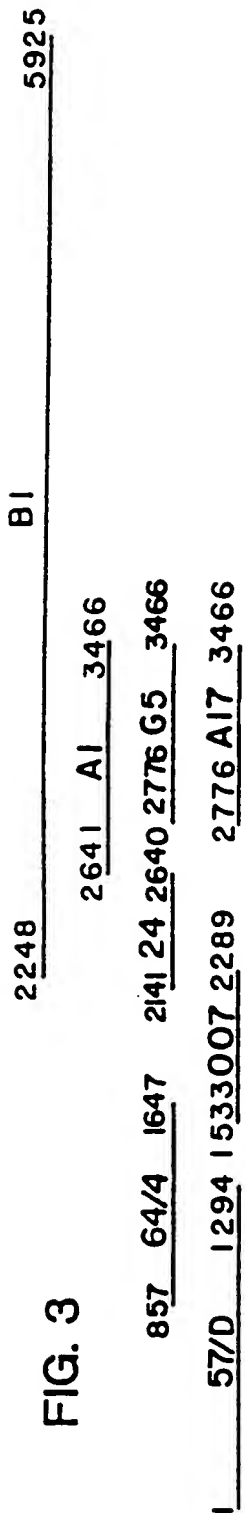
FIG. 2

ERSATZBLATT

0992157.080201

102080" 2512660

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g g g c g a t c g g t t a g c c c t g a a c c c a t t t a t g c t a c g a t t g a t a t c t c c g g c g g a c c t t t c c c t t t g a a a g g c a t g a t a a a g t t g a t g a t c t c a g t a a g g t a

g r s v s P E P I Y A t i D D L g g p F P L K R H D K V D D L S K V

D1 D2 D3

CTCCATTTTAAAGCAACTCCATAGACCCTAAAGAACTTTTTTTGAGGCTATCTTTGAA
GCTTAATATACATGCTAGTAAGCATGACACACAAACCAACTATTTTAAAGCGCTT
TCAAAAGATTCATTCTTATTTCTGCTCTTATTAAGTGCTTTTCATTTAGCAAAATT
CTTTTTCAAATTAATAATGATTAAATGAAAAAATAAATGCTTGATATGTTGTAT
TTGACACTAACAGATACCGATAGGATAGGATGAACTAGGATATAGTAAAGGAGAAACAATGACT
M T
AATAATCTTCAAGTAGCTTTTCTTAAAGTTGATAACGCTGTCGCTTCATACGATCTCTGAT
23 N N L Q V A F L K V D N A V A S Y D P D
CAATTAAAGGGAAGAACTACTCCAATAAAGCGATCAAAAATCTTACCAAAAAGAAATCAGTAT
63 Q L R E E Y S N K A I K N P T K K N O Y
GAATCTTCCACAAGAGCTTTCAGAAATTTGGGATCAGCGTTACCGAAATTTTCACAAGT
103 E S S T K S F Q K F G D Q R Y R I F T S
GAAATATCATACAACCCCTATCTTGTATGAAGAGAGGAGCGGAGTTTGTGAATCT
143 E N I I Q P I L D D K E K A E F L K S
ATGGCGTGTTTGATGAGTCTTGAAGAAAGGCAAGAGCAGAAAAAATGGAGAGCT
183 M G V F D E S L K E R Q E A E K N G E P
GATGCAAGAAGCAATCAATCAAGAACCAGTTCCCATGTCCCAACAGATATAGCCACT
223 D V K E A I N Q E P V P H V Q P D I A T
AATTTTCTAAATTCACCTTGGCGATAGAAATGTTAGATGTTGAGGGAGTCGCTGAC
263 N F S K F T L G D M E M L D V E G V A D
TTAATGGGAGTCATAATGGCATAGAACCTGAAAAGTTTCATTTGTTGATG66GGCAAT
303 L M G S H N G I E P E K V S L L Y G G M
AACAATGTGGCTACAATAATTAATGTGCATATGAAAACGGCAGTG6CTTAGTCATAGCA
343 N N V A T I I N V H M K N G S G L V I A
GGCTCACAACGAGCATTAAGTCAAGAAGAGAGATCCAAAACAAAATAGATTTTCATGGAAATT
383 G S Q R A L S Q E E I O N K I D F M E F
ACTGAGATTAAAGATTTCCAAAAGACTCTAAGGCTTATTTAGACGCCCTCAGGGAATGAT
423 T E I K D F Q K D S K A Y L D A L G M D
AATGGGATTTGAGCTACACTCTCAAGATTTATGGGAAAAGCAGATAAAGCTTTAGAT
463 N G D L S Y T L K D Y G K K A D K A L D
TATTTCTAATTTCAATACCAACGCTTCCAAAGATCCCAATAAGGGTGTAGGCGTTACG

FIG. 4 A

ERSATZBLATT

ATCTGTCCTATTGATTTGTTTCCATTTTGTTCCTCCATGTGGATCTTGTGGATCACAAC	120
CATGTGCTACCTTGACTAAACCAATTTCTCCAACCATACTTTAGCTTGCAATTTGATTTCT	240
TTGTTAATTGTGGGTAAAAATGTGAATCGTCTAGCTTTAGACGCTGCAACGATCG666	360
AATGAGAAATGTTCAAGAGACATGAATTGACTACTCAAGCGTGTAGCGAATTTTTCAGCAGTCT	480
AACGAAACCAATTGACCAACCAACCAACCGAAGCGGCTTTTAAACCCGACGCAATTTATC	600
N E T I D O P O P O T E A A F N P O Q F I	
CAAAACCAATCGTTGATAAGAACGATAG66GATAACAGGCAAGCTTTTGAAG6AATCTCG	720
Q K P I V D K N D R D N R O I A F E G I S	
TTTTACAGACTTTATCAATAAGAGCAATGATTTAANTCAACAAAGACAATCTCATTTGATGA	840
F S D F I N K S N D L I N K D N L I D V	
TGGGTGCCCATCAAAACGATCGCTGCTAANAATCAACACCCGATCGATCG6AAATTTTATG	960
W V S H Q M D P S K I N T R S I R N F M	
GCCAAACAATCTTTTGAC6GAATCATTTATAG6GAATCAAAATCCGAACGGATCAAAAGTTC	1080
A K Q S F A G I I G I G N O I R T D O K F	
ACTGGTGGGATGGTTGGATATTTTCTCTCATTTATATTTGACAAAACCAATCTTCT	1200
T G G D W L D I F L S F I F D K K O S S	
ACCACCACGACATACAAG6CTTACCGCTGAAGCTAGAGATTTTACTTGTGATGAAGGGGT	1320
T T T D I O G L P P E A R D L L D E R G	
ATTGATCCCAATTACAAGTTCAATCAATTATTGATTCACAAATAAGCTCTGTCTCTGTG	1440
I D P N Y K F N O L L I H N M A L S S V	
GGTGGTCTG6AGCTAG6CATGATTG6AACGCCACCCGTTG6TTATAAGACCACCAAG6C	1560
G G P G A R H D W N A T V V G Y K D O Q G	
GGTGGTGAAGAGGATTAAACAACCCCTAGTTTTTATCTCTACAAGAAGACCACCTACA	1680
G G E K G I N M P S F Y L Y K E D O L T	
CTTGCAAAAATARTGCTAAATTAGACACTTGAGCGGGAAGAGAGG6AAAATTCGGA	1800
L A Q N N A K L D N L S E K E K E K F R	
CGTATTGCTTTTGTCTAAAAAAGACACAAACATTCAGCTTTTAATTACTGAGTTTGGT	1920
R I A F V S K K D T K H S A L I T E F G	
AG66GAGAAAATGTTACTCTTCACGGTAGCCTAAAACATGATGGCGTGATGTTTGTGAT	2040
R E K N V T L O G S L K H D G V M F V D	
AATG6CGTTTCCCATTTAGAAAGTAGGCTTTTAAACAGGTAGCTATCTTTAATTGCGCTGAT	2160

FIG. 4B

ERSATZBLATT

503 Y S N F K Y T N A S K N P N K G V G V T
TTAATAATCTCGCTATCACTAGTTTCGTAAGCGGAATTTAGAGGATAAATCAACCACT
543 L N N L A I T S F V R R N L E D K L T T
GAATTGGTTGGAATACTTTAACTTCAATAAGCTGTAGCTGACGCTAAACACAGGC
583 E L V G K T L N F N K A V A D A K N T G
CATTAGAGAAAGTAGAGAAAATTTGGAGAGCAAGCGGCAACAAAATAAATG
623 H L E K E V E K L E S K S G N K N K M
GCTATAGAGACGCAAGCAATCGCTTACGCTCAGAATCTTAAGGCATCAAAAGGAA
663 A N R D A R A I A Y A Q N L K G I K R E
GAATCAAAATGGCAAAATAAGGATTCAGCAAG66CAGAGAACTAAAGCCCTT
703 E F K N G K N K D F S K A E E T L K A L
AATGCAGCTTTGNAATTCAAAATGGCAAAATAAGGATTTTCAGCAAGGTAAAGCAA
743 N A A L N E F K N G K N K D F S K V T Q
AAGTTGATAATCTCAATCAAGCGGTATCAGTGCTAAGCAACGGGTGATTTTCAGTAGG
783 K V D N L N O A V S V A K A T G D F S R
CAAAAATGAAGTCTCAATGCTAGAAAAATCTGABATATATCAATCCGTTAAGAT
823 Q K N E S L N A R K K S E I Y O S V K N
AAAACTTTTCGGACATCAAGAAAGAGTTGAATGCAAAATCTGGAAATTTCAATAACAT
863 K N F S D I K K E L N A K L G N F N N N
CAAGCAGCTAGCCTTGAAGAACCCCTTTACGCTCAAGTTGCTAAGAAAGTAATGCANAA
903 O A A S L E E P I Y A O V A K K V N A K
CCTTTGAAAG66CATGATAAGTTGATCTCAGTAAGGTAGG66CTTCAAGGAATCAA
943 P L K R H D K V D D L S K V G L S R N O
TTTGGCAATCTAGAGCAACGATAGACAGCTCAAGATTTCTACAAAACACATCCCATG
983 F G N L E O T I D K L K D S T K H N P M
TACGCTACTAACAGCCACATACGCTAATAGCAATATCAAAATGGAGCAATCAATGAA

FIG.4C

ERSATZBLATT

N G V S H L E V G F N K V A I F N L P D
AAAGGATTTCCCAACAAGAGCTAATAAGCTTATCAAGATTTTTTGAGCAGCAACAAA 2280
K G L S P O E A N K L I K D F L S S N K
AATTATGATGAAGTGAAGAAAGCTCAGAAGATCTTGAAAATCTTAAGGAAACGAGAG 2400
N Y D E V K K A O K D L E K S L R K R E
GAAGCAAAAGCTCAAGCTAACAGCCCAAAAGAGATGAGATTTTGCGTTGATCAATAAGAG 2520
E A K A O A N S O K D E I F A L I N K E
TTGCTGATAAATCTGAAAATGTCAACAAGATTTGAAGACTTTTGATAAATCTTTTGAT 2640
L S D K L E N V N K N L K D F D K S F D
AAAGTTCCGTTGAAGATTTAGGTATCAATCCAGATGGATTTCAAAAGTTGAAAACCTT 2760
K G S V K D L G I N P E W I S K V E N L
GCAAAAGCGACCTTGAAAATTCCTTAAAGATGTGATCATCAATCAAAAGGTAAACGGAT 2880
A K S D L E N S V K D V I I N O K V T D
GTAGAGCAAGCGTTAGCCGATCTCAAAAATTTCTCAAGGAGCAATTTGGCCCAACAGCT 3000
V E O A L A D L K N F S K E O L A O O A
GGTGTGAATGGAAACCTTAGTCG66TAAATGG66TTATCTCAAGCAGAGGCCACAACTTTCT 3120
G V N G T L V G M G L S O A E A T T L S
AACAAATATGGACTCAAAAACGAACCCATTTATGCTAAAGTTAATAAAAGAAAGCAG66 3240
N N N G L K N E P I Y A K V N K K A G
ATTGACCGACTCAATCAATAATAGCAAGT66TTT666TGTGAGG6CAAGCAGCG66CTTC 3360
I D R L N O I A S G L G V V G O A A G F
GAATTGGCTCAGAAAATTTGACAAATCTCAATCAAGCGGTATCAGAACTAAAGCAGGTTT 3480
E L A O K I D N L N O A V S E A K A G F
AATCTATG66TTGAAAGTGCAAAAAAGTACCTGCTAGTTGTGAGCGAAACTAGACAAT 3600
N L W V E S A K K V P A S L S A K L D N
AAAGCGACCGCATGCTAACGCCAAAAAACCCCTGAGTGGCTCAAGCTCGTGAATGATAG 3720

FIG.4D

ERSATZBLATT

1023 Y A T N S H I R I N S N I K N G A I N
 ATAGTTGCGCATAATGTAGGAAGCTTCTTTGTCAGAGTATGATAAATTTGCTTC
 1063 I V A H N V G S V P L S E Y D K I G F
 GTAAAGACACTAATCTG6CTTTAGCGCAATTTTAAACCAATGCAATTTTCTACAGCA
 1103 V K D T N S G F T Q F L T N A F S T A
 G6TTTCCAAAATCTTAAAGGATTAGGAATACCAAAACGCAAAACCCACCCCTIG
 1143 G F Q K S
 TGAATGCTACCAATTCATGGTATCATATCCCATACATTCGTATCTAGCGTAGGAAG
 AACTCTGTAAATCCCTATTATAGGACACAGAGTGAGAACCAACTCTCCCTACGG
 GACAGACACTAACGAAG6CTTTGTCTTTAAAGCTGCGATGGATATTTCTACCCC
 CGAAATTAATTAAGGTTTAAAGAGAGCATAACTAGAAAACCAAGTAGCTATA
 GAAAATCAGAAAACCATAGGAATTATCACACCTTATATGCCCAAAAGACGCT
 ATGCCTTCAAGGTGAAGAGGCAGATATTATTATTTCCACCGTGAAACTTGTG
 ATCTCATTTTGTGGTAAAGCTCTTTGAGAAATTTATGAGCGCTTATATCAACAC
 CATTCTCGCTTCAAAAGCTTTTCAATCTCTAAAGCGCTTATATCAACAC
 TTATTAGCGTTACAAATTTGAGCCATCTTTAGCTTGTCTTAGCCAGATCACATC
 CTGCAATATCTACATAGCATCGCCCGAATGGATGAGTGG66GGTGTGAAG
 TAAATATCACTTCGGGAAAATCTTTAAGGGAGTGAAATTAATACGCATGCAAGTT
 TGCBAACATTCAAATAGCCTTGTGTTTCAGGGCATTGTGATAGCGTTGGATTGG
 GCTAATGCTTGTGCTCAATCAGCCCAACAAATAGGGATTTTGGAAATGCTTTTGCATC
 TTGAAAAATCCAAAGCCTCTAAGCCAAATTTGCTTGTGATCGTAGTGG66TCTTTAGTG
 AG6CTTTTAAACGCTAAACCTCCCAACCGCTATCAAAACGCTATTTTCATG
 TCTTCATTGCTCCTAGTTTGTGCAATTTAAGATAGACAAAGCTT 5925

FIG. 4E

ERSATZBLATT

E K A T G M L T Q K N P E W L K L V M D K
 AACCAAGAATATGAAGATTATCTGATTGCTTCAAGTTTCCACCAGTTGAACATGCT 3840
 M O K N M K D Y S D S F K F S T K L M N
 TCTTATTACTGCTTGGCGAGAGAAATCGGAGCATGGAAATCAAGAACGTTAATACAAAC 3960
 S Y Y C L A R E N A E H G I K N V M T K G
 CTAAGGCGAGG66TTTTTAATACTCTTAGCAGAAATCCCAATCGTCTTTAGTATTTGGGA 4080
 TGTGCAAGTTACGCTTTGGAGATATGATGTGAGACCTGTAGGGAATGCGTTGGAGCTCA 4200
 GCAACATCAGCCTAG6AAGCCCAATCGTCTTAGCGGTGGGCACTTCACCTTAAATATCCC 4320
 AAAAGACTTAACCTTTGCTTAAATTAAGTTTGAATGCTAGTGGGTTCTGCTATAGTG 4440
 ACAAGATCAAGTTCAAAAATCATAGAGCTTTTAGAGCAAAATGATCGGCTCTTAACCAAA 4560
 TGGATCAGAAGTGGAATAATACGGCTTCAAGAAATTTGATGAGCTCAAAATAGACACTGTGG 4680
 GTAACTTTCTTCTTCTGCTAGATTCTAAACGCTTGAATGTGGCTATTTCTAGGGCAAAAGAA 4800
 ATATCTTTAGCGCTATTTGCAAGCTGTAGATAGTAACTTTTCCAAAGATAATCATAGA 4920
 AATACCTTTATAGTGTAGCTATAGCCCLTTTGTGGAAATGAGTJATTTTGACTTTAAATTT 5040
 GCCGCTCGCATGAATTTCCACTTTAG66AATGCGTGTGCAATTTTAAAGGGCGTATTTTG 5160
 GGCAAAATGCTCCATAAAATAGCCCTCAATTTTGTAGCGATTAAAGGAAATGCGTGAACC 5280
 TCTAACAATTCGCCCTCTAAAATACCTTTCTCAATCAAGGCAAAAAGAGAGTGGCTAAA 5400
 ATC6TCGCTTTTGTCCCTAGCCTCAAAATAG666CGTTTATCTTTTACTTGTGCTGTATC 5520
 TCTTCAAGCTAGAGCGCTGCTGTGTTGATGATGATGATGATGATGATGATGATGATGATG 5640
 CCATAAGGCACTCTAGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 5760
 ACACCTTTTAAATTTAATG66GATTAAATG66GATTTTATTTTTCATTCATTAAGTTTAAAT 5880

FIG. 4F

ERSATZBLATT

12 / 14

10 30 50
AAGCTTGCTGTCATGATCACAAAAACACTAAAAACATTATTATTAAGGATACAAAATG
M
70 90 110
GCAAAAGAAATCAAATTTTCAGATAGTGCGAGAAACCTTTTATTTGAAGGCGTGAGGCAA
A K E I K F S D S A R N L L F E G V R Q
130 150 170
CTCCATGACGCTGTCAAAGTAACCATGGGGCCAAGAGGCAGGAATGTATTGATCCAAAA
L H D A V K V T M G P R G R N V L I Q K
190 210 230
AGCTATGGCGCTCCAAGCATCACCAAAGACGGCGTGAGCGTGGCTAAAGAGATTGAATTA
S Y G A P S I T K D G V S V A K E I E L
250 270 290
AGTTGCCAGTAGCTAACATGGGCGCTCAACTCGTTAAAGAAGTAGCGAGCAAAACCGCT
S C P V A N M G A Q L V K E V A S K T A
310 330 350
GATGCTGCCGGCGATGGCACGACCACAGCGACCGTGCTAGCTTATAGCATTTTTAAAGAA
D A A G D G T T T A T V L A Y S I F K E
370 390 410
GGTTTGAGGAATATCACGGCTGGGGCTAACCCCTATTGAAGTGAAACGAGGCATGGATAAA
G L R N I T A G A N P I E V K R G M D K
430 450 470
GCTGCTGAAGCGATCATTAAATGAGCTTAAAAAAGCGAGCAAAAAAGTAGGCGGTAAAGAA
A A E A I I N E L K K A S K K V G G K E
490 510 530
GAAATCACCCAAGTGGCGACCATTTCTGCAAACTCCGATCACAATATCGGGAAACTCATC
E I T Q V A T I S A N S D H N I G K L I
550 570 590
GCTGACGCTATGGAAAAAGTGGGTAAAGACGGCGTGATCACCGTTGAGGAAGCTAAGGGC
A D A M E K V G K D G V I T V E E A K G
610 630 650
ATTGAAGATGAATTGGATGTCGTAGAAGGCATGCAATTTGATAGAGGCTACCTCTCCCT
I E D E L D V V E G M Q F D R G Y L S P

FIG. 5A

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670 690 710
 TATTTTGTAAACGAACGCTGAGAAAATGACCGCTCAATTGGATAATGCTTACATCCTTTTA
 Y F V T N A E K M T A Q L D N A Y I L L
 730 750 770
 ACGGATAAAAAAATCTCTAGCATGAAAGACATTCTCCCGCTACTAGAAAAAACCATGAAA
 T D K K I S S M K D I L P L L E K T M K
 790 810 HindIII
 GAGGGCAAACCGCTTTTAATCATCGCTGAAGACATTGAGGGCGAAGCTTTAACGACTCTA
 E G K P L L I I A E D I E G E A L T T L
 850 870 890
 GTGGTGAATAAATTAAGAGGCGTGTTGAATATCGCAGCGGTTAAAGCTCCAGGCTTTGGG
 V V N K L R G V L N I A A V K A P G F G
 910 930 950
 GACAGAAGAAAAGAAATGCTCAAAGACATCGCTATTTTAACCGGCGGTCAAGTCATTAGC
 D R R K E M L K D I A I L T G G Q V I S
 970 990 1010
 GAAGAATTGGGCTTGAGTCTAGAAAACGCTGAAGTGGAGTTTTTAGGCAAAGCTGGAAGG
 E E L G L S L E N A E V E F L G K A G R
 1030 1050 1070
 ATTGTGATTGACAAAGACAACACCACGATCGTAGATGGCAAAGGCCATAGCGATGATGTT
 I V I D K D N T T I V D G K G H S D D V
 1090 1110 1130
 AAAGACAGAGTCGCGCAGATCAAAACCCAAATTGCAAGTACGACAAGCGATTATGACAAA
 K D R V A Q I K T Q I A S T T S D Y D K
 1150 1170 1190
 GAAAAATTGCAAGAAAGATTGGCTAAACTCTCTGGCGGTGTGGCTGTGATTAAAGTGGGC
 E K L Q E R L A K L S G G V A V I K V G
 1210 1230 1250
 GCTGCGAGTGAAGTGGAAATGAAAGAGAAAAAAGACCGGGTGGATGACGCGTTGAGCGCG
 A A S E V E M K E K K D R V D D A L S A
 1270 1290 1310
 ACTAAAGCGGCGGTTGAAGAAGGCATTGTGATTGGTGGCGGTGCGGCTCTCATTCGCGCG
 T K A A V E E G I V I G G G A A L I R A

FIG. 5B

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1330 1350 1370
GCTCAAAAAGTGCATTTGAATTTGCACGATGATGAAAAAGTGGGCTATGAAATCATCATG
A Q K V H L N L H D D E K V G Y E I I M
1390 1410 1430
CGCGCCATTAAAGCCCCATTAGCTCAAATCGCTATCAACGCTGGTTATGATGGCGGTGTG
R A I K A P L A Q I A I N A G Y D G G V
1450 1470 1490
GTCGTGAATGAAGTAGAAAAACACGAAGGGCATTGTTTAAACGCTAGCAATGGCAAG
V V N E V E K H E G H F G F N A S N G K
1510 1530 1550
TATGTGGATATGTTTAAAGAAGGCATTATTGACCCCTTAAAGTAGAAAGGATCGCTCTA
Y V D M F K E G I I D P L K V E R I A L
1570 1590 1610
CAAAATGCGGTTTCGGTTTCAAGCCTGCTTTTAACCACAGAAGCCACCGTGCATGAAATC
Q N A V S V S S L L L T T E A T V H E I
1630 1650 1670
AAAGAAGAAAAAGCGACTCCGGCAATGCCTGATATGGGTGGCATGGGCGGTATGGGAGGC
K E E K A T P A M P D M G G M G G M G G
1690 1710 1730
ATGGGCGGCATGATGTAAGCCCGCTTGCTTTTAGTATAATCTGCTTTTAAATCCCTTC
M G G M M *
1750 1770 1790
TCTAAATCCCCCCTTTCTAAATCTCTTTTTGGGGGGGTGCTTTGATAAAACCGCTCG

1810 1830
CTTGTA AAAACATGCAACAAAAAATCTCTGTTAAGCTT

FIG. 5C